

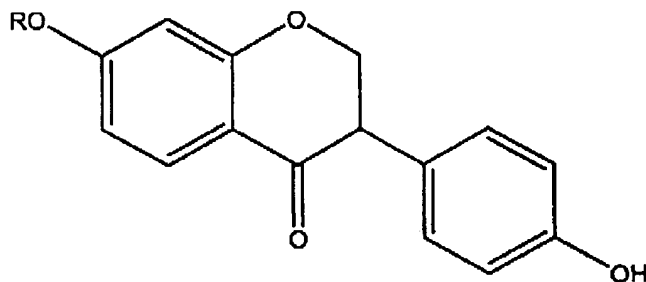
DEC 14 2006

Application No. 09/616,718
Docket No. 11187-00001
(Atty Dkt No. Endow-2, DIV-01)
Reply to Office Action September 15, 2006

LISTING OF THE CLAIMS

The following listing of claims will replace all prior versions and listing of claims in the application. For the Examiner's convenience a complete listing of all claims incorporating the amendments made herein is attached as Appendix A.

1. (Previously Presented) A method for inhibiting ALDH-2 in a human comprising contacting ALDH-2 with a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a

sugar moiety;

peptide;

polyether;

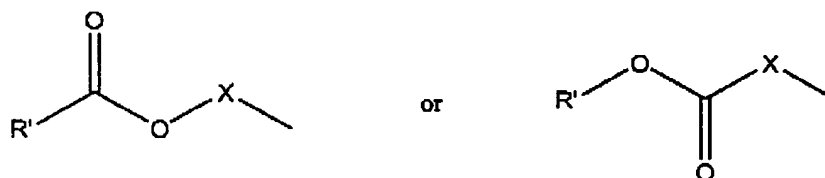
straight chain alkyl having 1-11 carbon atoms, or branched chain alkyl having 1-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 1-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

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hydroxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

carboxylalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; or



where X is straight chain alkylene having 2-11 carbon atoms, or branched chain alkylene having 2-30 carbon atoms, where the branched chain alkylene comprises a straight chain alkylene portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and

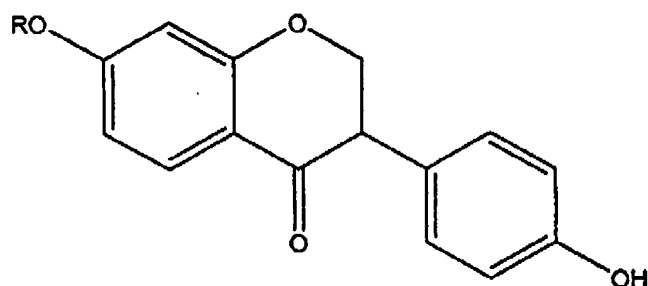
R' is straight or branched alkyl having 1-6 carbon atoms,

in an amount effective to increase concentration of 5-hydroxyindole-3-acetic acid or 3,4-dihydroxy phenylacetic acid.

2. (Previously Presented) The method of claim 1 wherein the sugar moiety is glucosyl, L or D aldo or keto-tetrose, pentose, heptose, an amino, alcohol or acid derivative of tetrose, pentose, hexose or heptose, a deoxyanalog of tetrose, pentose, hexose or heptose.

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3. (Currently Amended) A method for increasing the concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-acetaldehyde formed during catabolism of serotonin or dopamine in a human comprising administering a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a

sugar moiety selected from the group consisting of L and D, aldo- and keto-, tetroses, pentoses, heptoses, amino derivatives of tetroses, pentoses, or heptoses, alcohol derivatives of tetroses, pentoses, or heptoses, acid derivatives of tetroses, pentoses, or heptoses and deoxy analogs of tetroses, pentoses, or heptoses;

peptide;

polyether; or

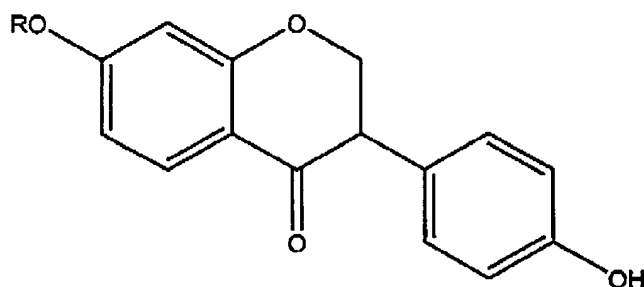
aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

in an amount effective to increase the concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-acetaldehyde formed during catabolism of serotonin or dopamine.

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4-12. Cancelled

13. (Currently Amended) A method for therapeutically reducing alcohol consumption in a human in need thereof comprising administering to the human a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a

peptide;

polyether; or

aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

in an amount effective to increase the concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-acetaldehyde formed during catabolism of serotonin or dopamine.

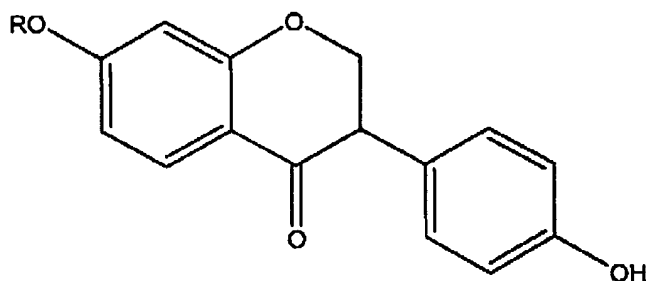
14-15. Cancelled

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APPENDIX A
CLEAN COPY OF CLAIMS AS AMENDED HEREIN

1. A method for inhibiting ALDH-2 in a human comprising contacting ALDH-2 with a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a

sugar moiety;

peptide;

polyether;

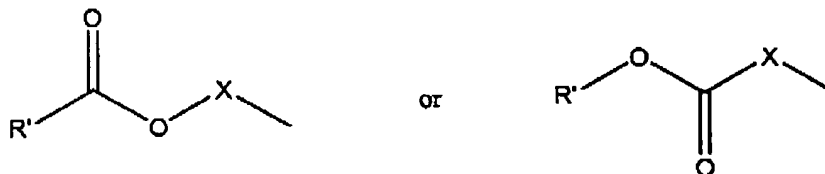
straight chain alkyl having 1-11 carbon atoms, or branched chain alkyl having 1-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 1-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

hydroxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

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aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

carboxylalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and



where X is straight chain alkylene having 2-11 carbon atoms, or branched chain alkylene having 2-30 carbon atoms, where the branched chain alkylene comprises a straight chain alkylene portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and

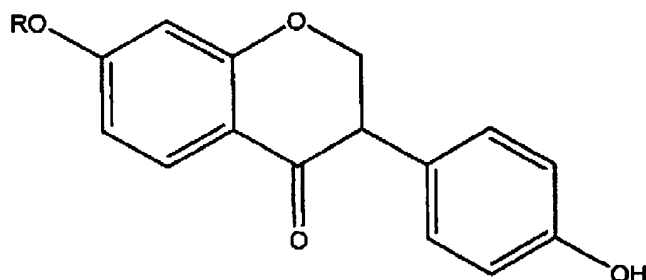
R' is straight or branched alkyl having 1-6 carbon atoms,

in an amount effective to increase concentration of 5-hydroxyindole-3-acetic acid or 3,4-dihydroxy phenylacetic acid.

2. The method of claim 1 wherein the sugar moiety is glucosyl, L or D aldo or keto-tetrose, pentose, heptose, an amino, alcohol or acid derivative of tetrose, pentose, hexose or heptose, a deoxyanalogue of tetrose, pentose, hexose or heptose.

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3. A method for increasing the concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-acetaldehyde formed during catabolism of serotonin or dopamine in a human comprising administering a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a

sugar moiety selected from the group consisting of L and D, aldo- and keto-, tetroses, pentoses, heptoses, amino derivatives of tetroses, pentoses, or heptoses, alcohol derivatives of tetroses, pentoses, or heptoses, acid derivatives of tetroses, pentoses, or heptoses and deoxy analogs of tetroses, pentoses, or heptoses;

peptide;

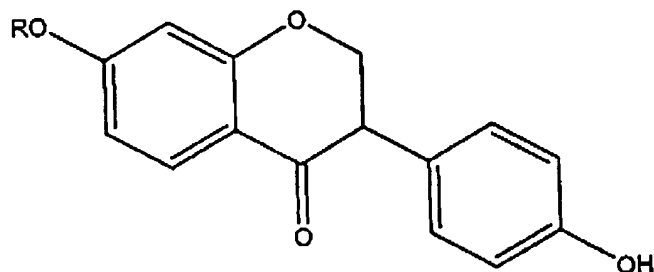
polyether; or

aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

in an amount effective to increase the concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-acetaldehyde formed during catabolism of serotonin or dopamine.

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13. A method for therapeutically reducing alcohol consumption in a human in need thereof comprising administering to the human a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a

peptide;

polyether; or

aminoalkyl where the alkyl portion is a straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

in an amount effective to increase the concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenyl-acetaldehyde formed during catabolism of serotonin or dopamine.